



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,468	01/29/2004	Kheng Chiong Tay	07044.0002	3727

22852 7590 01/11/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER
----------

REAMES, MATTHEW L

ART UNIT	PAPER NUMBER
----------	--------------

2891

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/766,468

Applicant(s)

TAY ET AL.

Examiner

Matthew L. Reames

Art Unit

2891

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 112***

- 1) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 2) Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 2 recites "a transparent and translucent resin material" a skill artisan would not be able to manufacture a resin that is both transparent and translucent since they are mutually exclusive features. .

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 3) Claim 4-8 recites the limitation " base material" in claim 1. There insufficient antecedent basis for this limitation in the claim.
- 4) Regarding claim 4, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- 5) Claim 6 recites the limitation " plastic package" in claim 5. There insufficient antecedent basis for this limitation in the claim.

6) Claim 7 recites the limitation "other two side walls" in claim 1. There is insufficient antecedent basis for this limitation in the claim. Further it is not understood which two other side walls since this claim has no prior dependence on a claim which indicates the base material protrudes from any sidewall. It is understood either the dependence of this claim should be off of claim 5 (I), or the "other two side walls" should be "two sidewalls of said housing." (II).

7) Claim 8 recites the limitation "side protrusions" in claim 1. There insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

8) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9) Claims 1-8 (see claims 5 and 7) are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida and Itou (JP 06-85325).

a) As to claim 1 Yoshida discloses an optoelectronic component based on the surface mount technology, said component comprising a electrically conductive material see (fig. 3 items 2 and 3), an opaque resin material (fig. 3, item 5), and a cavity (fig. 3 item 5a), wherein the said electrically conductive material serves as a base for the assembly, (see fig. 3) wherein the bottom portion of the two lead frames makes up the base, the said opaque plastic material (fig. 3 item 5) provides a housing for the whole component, and the said cavity (fig. 3 item 5a) is located within the plastic material where an optoelectronic chip (fig. 3 item 4) is mounted in.

Yoshida does not disclose wherein the opaque material is plastic however it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute plastic for the resin material since plastics are much more durable and cost efficient.

b) As to claim 2, Yoshida teaches wherein the cavity (fig. 3 item 5a) is filled with a transparent resin material (see paragraph 9 and fig 1 item 15).

c) As to claim 3, Yoshida teaches wherein the electrical connections between the chip (fig. 3 item 4) and the base material is provided with a metallic wire (fig. 3 item 4a and see paragraph 3).

d) As to claim 4 Yoshida teaches, wherein initial base material provides connecting terminals to the external sub-systems such as PCBs (see fig. 3 item 2 and 3).

e) As to claim 5, Yoshida teaches, wherein the said base material protrudes from the middle to the bottom (see fig. 3 item 2 and 3) and to one of the sidewalls (fig. 3 item 2 and 3).

f) Claim 5 is alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida and Itou and Yoshida (JP 06-204568).

From of Yoshida fig. 3 the lead frames read on the claim 5 however Yoshida is a machine translation and one where to interpret Yoshida so narrowly in that it does not explicitly teach claim 5, it would have been obvious in view of Itou.

Itou teaches a lead frame wherein the side portions of the lead frame is connected to neighboring LEDs, and they subsequently protrude from the plastic housing (see drawings 2 item 13a and 3 item 2a).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform said modification in order to have gained better electrical contact with the PCB (see problem to be solved section).

g) As to claim 6 Yoshida teaches wherein the said base material protrudes outside the plastic package (see fig. 3 item 2 and 3).

For convenience the two above presumption are restated: It is understood either the dependence of this claim should be off of claim 5 (I), or the "other two side walls" should be "two sidewalls of said housing."(II)

h 1)Under (I) Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida.

h) As to claim 7, Yoshida does not explicitly teach wherein the said base material protrudes to the two other sides of the plastic package.

However it would have been obvious to one of ordinary skill in the art to modify the device of Yoshida such that the base material protrudes from the other two sides of the plastic package.

One would have been so motivated to perform said modification in order to have formed a larger wiring region for mounting purposes, which would have provided a better electrical connection to surrounding subsystem (e.g. PCBs).

h 2) Under (II) Yoshida teaches wherein the, the base material protrudes from two sides of said housing (see fig. 3 item 2 and 3)(see claim 5).

i) As to claim 8 Yoshida teaches, wherein the side protrusions can be used for electrical connections (see fig. 3 item 2 and 3) (see claim 5).

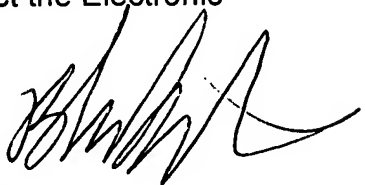
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew L. Reames whose telephone number is (571)272-2408. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley W. Baumeister can be reached on (571)272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLR



**B. WILLIAM BAUMEISTER**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2891